



GOCE-CT-2003-505446  
MarBEF



# Marine Biodiversity and Ecosystem Functioning

*EU Network of Excellence*

*Sustainable development, global change and ecosystems*

## **D-7-CSP-4.5 Report on training course “Plankton bloom dynamics”, Barcelona**

Due date of deliverable: 30. November 2007  
Actual submission date: 1. December 2007

Start date of project: 1 February 2004

Duration: 60 months

Organisation name of lead contractor for this deliverable

Framework Programme (2002-2006)		
Dissemination Level		
<b>PU</b>	Public	X
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

## Plankton bloom dynamics

### An integrative approach using molecular and genomic tools

4<sup>th</sup> to 15<sup>th</sup> of June, 2007

Institut de Ciències del Mar-CSIC, Barcelona, Spain

The CSIC-ICM institute in Barcelona (Spain) is a member of both of the NoEs Marine Genomics Europe and MARBEF. With Josep M. Gasol as head of the organization they hosted this two weeks summer school for PhD students and post docs in the summer of 2007. The target group was PhD students at least in their second year and junior post docs from the fields of marine biology and molecular ecology. The course was open to members of the MGE and MarBEF as well as people from outside these networks.

The following 20 participants were selected from 31 applications. The lectures were open also for local students and scientists.

Julia Boras	Marine Sciences Institute, CSIC
Karolina Härnström	Göteborg University
Ruth Noemí Kaplan-Levy	IOLR
Paolo Simonelli	University of Bergen
Cansu Bayindirli	Middle East Technical University
Philipp Assmy	AWI
Alberto Amato	SZN
Markus Majaneva	University of Helsinki
Marie Johansen	KMRS
Elisabeth Albinsson	University of Tasmania
Paola Gomez	Max-Planck Institute for Marine Microbiology
Jessica Kegel	AWI
Jean-Christophe Auguet	Centre de Estudis Avançat de Blanes
Mauro Celussi	National Institute of Oceanography and Experimental Geophysics, Trieste
Kajsa Tønnesson	Aarhus University
Laura Hoikkala	Finnish Institute of Marine Research
Aiste Miltenyte	Klaipeda university
Fernando Gómez	Station Marine de Wimereux

The course was organised in morning sessions consisting in theoretical lessons by different teachers and afternoon sessions dedicated to practical laboratory protocols and experiments.

The red thread for the teaching was all stages of a plankton bloom. One teacher per day was invited, starting during the first week with genomic expertise on phytoplankton organisms presented by **Chris Bowler** (ENS, Paris) and **Virginia Armbrust** (Univ. Washington, USA). Then state-of-the-art bacterioplankton methodology was explained and demonstrated by **Bernard Fuchs** (MPI Bremen) and **Mary Ann Moran** (Univ. Georgia, USA). In the evening CSIC scientists gave one review lecture per day on their related fields of study, with a highlight by **Carlos Pedros-Alio** (CSIC, Barcelona) on how to hold a good presentation.

In parallel the CSIC staff around Pep Gasol set up a mesocosm experiment on the first day of the course. It was sampled regularly and the teachers could “buy in” to get fresh samples to present their techniques. Everyday started with Pep giving an update of the experimental data measured so far and

the afternoons were dedicated to practicals covering techniques like flow cytometry, FISH, PCR, virus determination and many others.

After a relaxing weekend, with a very nice excursion on Saturday to the Dali Museum, an unspoilt beach and coastline along the Costa Brava as well as the old university town of Girona, including a generous joint dinner, the group spirit and energy for the second week were reinforced. To follow the transfer of the plankton biomass into the food web, now viruses, nano-, micro- and large zooplankton were covered by **Willie Wilson** (now Bigelow, USA), **David Montagnes** (Uni Liverpool) and, as a double act, **Penny Lindeque** (PML, Plymouth) and **Jens Nejstgaard** (Uni Bergen) who all spread their knowledge with great enthusiasm.

The final day was left to wrap up the results of the mesocosm experiment, in which a strong diatom bloom had developed, as well as tie together the elements of the course. Originally **Victor Smetacek** (AWI, Bremerhaven) was planned to be the final lecturer to tie all the elements together, however he could not come and his post doc Philip Assmy did an excellent job in giving Victor's presentation.

The course was evaluated both individually and in the big group. The students were very happy with the course, the diversity of lecturers, the wide-ranging scope as well as the networking opportunities. They gave very good feedback on what could be improved, indicating that such a course might be worth repeating. The lecturers and organizers got the impression that a team spirit developed which might help the emerging scientists to form an integrated researcher network in the future.

Kristineberg, November 21, 2007

Ulrika Hjelm, by means of the organizing committee:

Josep M. Gasol, ICM-CSIC Barcelona, ES

Clara Cardelus, ICM-CSIC, Barcelona, ES

Johanna Wesnigk, Bremen, DE

Adrianna Ianora, SZN, Naples, IT

Thierry Comtet, SBR, Roscoff, FR

Ulrika Hjelm, KMRS, SE

& Jessika Kegel representing the course participants

